

| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|-------------------------------|------------------------|---------------------|--|
|                               | 10/062,503             | MURAYAMA ET AL.     |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Tuan V. Thai           | 2186                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Examiner interview conducted on 09/30/2005.
2.  The allowed claim(s) is/are 21-46, 49 and 52-53 renumbered as 1-5,9-15,21-25,28,26-27,6-7,16,18,17,29,19,30,8 and 20 respectively.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. 09/227,740.
3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

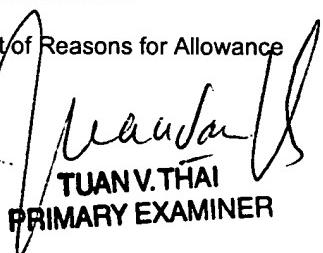
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date 09/30/05.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.



TUAN V. THAI  
PRIMARY EXAMINER

Application/Control Number: 10/062,503

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**Attorney's Docket No.: H-754-02**

**IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE**

**In re application of:** Murayama et al.      **Group:** 2186  
**Serial No.:** 10/062,503      **Examiner:** Tuan Thai  
**For:** **INFORMATION PROCESSING APPARATUS.**

1. This action is responsive to Examiner interview conducted on September 30, 2005. Claims 1-20 have been cancelled. Claims 21-53 are presented for examination. Claims 47-48 and 50 are now canceled. Claims 21-24, 49 and 52-53 are now allowed.

**EXAMINER'S AMENDMENT**

2. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

3. Authorization for this Examiner's Amendment was given in a telephone interview with Mr. John R. Mattingly; Reg. No. 30,293 on September 30, 2005.

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4. The application has been amended as follows:

a. In the claims:

a1. **Cancel claims 47-48 and 50.**

a2. Please amend claims **21, 26 and 33** as follow:

**Claim 21. (amended)** A computer system, in which a part of main memory is able to be hot-plugged, said computer system comprising:[,]

a first memory,

a non-volatile storage storing first memory information of said first memory size and a second memory information of a second memory to be hot-plugged,

a processor acquiring said first and second memory information from said non-volatile storage and mapping said first memory based on said first and second memory information, said processor being capable of accessing said non-volatile memory before initialization of an I/O device[.];

wherein said first memory includes a region not subject to address translation and wherein said processor reserves first and second logical-physical address translating tables in said region not subject to address translation.

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**Claim 26. (amended)** A computer system comprising[,]:

first main memory,

non-volatile storage storing a first configuration second configuration information of said first main memory and information of a second main memory to be hot-added, and

a processor acquiring said first and second configuration information from said non-volatile storage on memory-mapping of said first main memory, said processor being capable of accessing said non-volatile memory before initialization of an I/O device  
[.];

wherein said first memory includes a region not subject to address translation and wherein said processor stores first logical-physical address translating pairs of said first memory in said region not subject to address translation.

**Claim 33. (amended)** A computer system, which supports a virtual memory system, said computer system comprising[,]:

a first main memory,

a non-volatile storage storing a first information setting a memory size of a second main memory to be hot-inserted,

a processor mapping said first main memory and acquiring said first information upon said mapping, said processor being capable of accessing said non-volatile memory before

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initialization of an I/O device[.]<sub>i</sub>

wherein said first memory includes a region not subject to address translation and wherein said processor stores first logical-physical address translating pairs of said first main memory in said region not subject to address translation.

#### **REASONS FOR ALLOWANCE**

5. The following is an Examiner's Statement of Reasons for Allowance:

The prior art of record does not teach or suggest, alone or in combination, **all** the limitations of the amended independent claims of the current invention (claims 21, 26 and 33). The closest prior art of Ninomiya ('968) discloses a computer system in which clock signals are supplied to devices as the components of the system through different clock signal lines, the system comprises a plurality of devices connected to a bus of the computer system, a register in which programmable clock drive control information for designating permission/inhibition of clock supply in units of devices, and a clock drive unit having a plurality of buffer circuits for driving the clock signal lines of the plurality of devices, the buffer circuit permitting/inhibiting the drive operation of the clock signal line in accordance with the clock drive control information set in the

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register, wherein the clock signal lines of the plurality of devices can be selectively driven. The prior arts of record do not teach or disclose a non-volatile storage for storing first memory information of the first memory size and a second memory information of a second memory to be hot-plugged, and a processor acquiring the first and second memory information from the non-volatile storage and mapping the first memory based on the first and second memory information, the processor can access the non-volatile memory before initialization of an I/O device wherein the first memory includes a region not subject to address translation and the processor reserves first and second logical-physical address translating tables in the region not subject to address translation. The prior art reference do not further teach different I/O units can access the flash memory, and the processors acquires the information in the non-volatile storage about the memory to be hot-added before initialization. In light of the foregoing, claims 21, 26 and 33 of the present application are found to be patentable over the prior arts.

Claims 22-25, 27-32, 34-46, 49 and 51-53 further limit the allowable independent claims 21, 26 and 33. These claims are therefore allowable for the same reason as set forth above.

Any comments considered necessary by Applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue

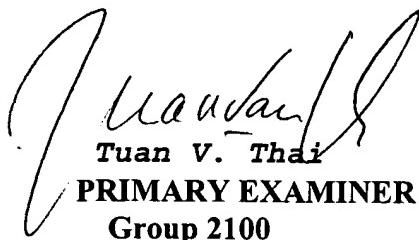
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Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/September 30, 2005

  
Tuan V. Thai  
**PRIMARY EXAMINER**  
Group 2100